Claims

1. A wireless apparatus comprising: a mixer for converting a frequency of a received signal;

an analog filter for filtering the received signal whose frequency has been converted by said mixer;

an analog-to-digital converter for converting the received analog signal filtered by said analog filter into a digital signal;

a digital filter having a band limiting characteristic which is inverse to that of said analog filter with respect to an ideal filter, for filtering the digital signal into which the received signal has been converted by said analog-to-digital converter; and

a digital filter control unit for disabling the filtering of the digital signal by said digital filter when determining from a receive level of the received signal that the filtering by said digital filter will increase distortion of the received signal.

2. The wireless apparatus according to Claim 1, characterized in that said digital filter control unit includes a receive level detector for detecting the receive level of the received signal, a threshold storage unit for storing a receive level threshold which said digital filter control unit uses when disabling the filtering of the digital signal by the digital filter, and a level comparison unit for enabling or disabling the filtering of the digital signal by said digital filter according to a comparison between the receive level detected by said receive level detector and the receive level threshold

stored in said threshold storage unit.

3. The wireless apparatus according to Claim 2, characterized in that said threshold storage unit stores, as the receive level threshold which said digital filter control unit uses when disabling the filtering of the digital signal by said digital filter, a linear receive level high limit of the received signal which is influenced by an analog unit including the mixer, the analog filter, and the analog-to-digital converter.

4. The wireless apparatus according to Claim 2, characterized in that said threshold storage unit stores, as the receive level threshold which said digital filter control unit uses when disabling the filtering of the digital signal by said digital filter, a linear receive level low limit of the received signal which is influenced by an analog unit including the mixer, the analog filter, and the analog-to-digital converter.

5. The wireless apparatus according to Claim 2, characterized in that said threshold storage unit stores, as the receive level threshold which said digital filter control unit uses when disabling the filtering of the digital signal by said digital filter, a linear receive level high limit and a linear receive level low limit of the received signal which is influenced by an analog unit including the mixer, the analog filter, and the analog-to-digital converter.

6. The wireless apparatus according to Claim 1,

characterized in that said digital filter includes an output selecting unit for selecting and outputting the received signal which has been filtered by said digital filter or the received signal which has not been filtered by said digital filter according to enabling or disabling control of the filtering of the digital signal by said digital filter control unit.